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**From:** Mutter, Andrew [mutter.andrew@epa.gov]  
**Sent:** 9/17/2018 7:53:34 PM  
**To:** Benevento, Douglas [benevento.douglas@epa.gov]  
**Subject:** FW: Compilation 9/17/2018

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**From:** Agarwal, Ilena  
**Sent:** Monday, September 17, 2018 1:53:28 PM (UTC-07:00) Mountain Time (US & Canada)  
**To:** AO OPA OMR CLIPS  
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Emissions:

- [BNA: Omitted Health Costs Could Tip Scales on EPA Methane Rollback](#)
- [E&E News: 8 ways that EPA's helping the coal industry](#)
- [Maryland plans to appeal EPA denial of emissions petition](#)

Asbestos:

- [Environmental Working Group: EPA Watchdog Slams Agency's Failure to Address Asbestos in U.S. Schools](#)

Hurricane Florence:

- [ABC News: Florence's floodwaters may carry hidden dangers: Electrocution, injury and infection](#)
- [E&E News: A second coal ash impoundment has breached — EPA](#)

## BNA: Omitted Health Costs Could Tip Scales on EPA Methane Rollback

By Abby Smith- September 17, 2018

The EPA knows its plans to relax Obama-era oil and gas methane limits could harm public health due to related air pollution increases, but it hasn't calculated the exact toll on health.

The Environmental Protection Agency for several years has chosen not to monetize public health effects in its oil and gas rules, including during the Obama administration. But the stakes are higher now, environmentalists and health researchers said, because the Trump EPA proposal could allow for the release of thousands more tons of volatile organic compounds, or VOCs—a precursor for the lung irritant ozone—and hazardous air pollutants over the next decade.

Those public health costs “could be the thing that determines whether the rule is actually justified or not,” Avi Zevin, an attorney with the Institute for Policy Integrity, told Bloomberg Environment.

“They should be doing a more complete consideration of what those costs of the foregone health benefits are, what they would mean, and how that factors into their decisionmaking,” Zevin said.

The EPA estimated its Sept. 10 proposal (RIN:2060-AT54) would cause increases of 100,000 short tons of VOCs and 3,800 short tons of hazardous air pollutants between 2019 and 2025. Those increases are in addition to a bump in methane of 380,000 short tons, or to 8.5 million metric tons of carbon dioxide equivalent.

The agency quantified the cost of the extra methane emissions in its regulatory impact analysis. But the EPA said data limitations prevented it from doing the same for extra emissions of VOCs and hazardous air pollutants, even though it acknowledged those emissions could degrade air quality and harm human health.

### **Insignificant Increases**

Oil and gas industry groups said the projected pollution increases are relatively small compared to total U.S. emissions.

The estimated methane increases are roughly 1.4 million metric tons of carbon dioxide equivalent a year, which is about 0.02 percent of total U.S. greenhouse gas emissions tallied by the EPA in its annual inventory, Kathleen Sgamma, president of the Western Energy Alliance, told Bloomberg Environment.

The estimated bump in VOC emissions is similarly insignificant when compared to total U.S. emissions, she added.

Sgamma said the EPA's analyses also don't account for how the regulation might work in practice. She touted a provision in the Trump proposal that allows companies to apply to use new technologies to detect and repair leaks. The Obama administration's rule, by contrast, locked companies into a specific method and timeline of conducting inspections, she argued.

"The net effect of this rule could be more emissions reductions," Sgamma said of the new proposal. "Whenever we apply new technology, we can do it faster, quicker, cheaper, more efficiently, and deliver greater environmental benefit."

### **Benefits and Costs**

The Trump EPA isn't the first to decline to monetize the public health effects of VOC and hazardous air pollutants. The Obama administration, in its 2016 regulation, also didn't quantify these impacts, similarly citing data limitations.

But environmentalists argue in that case, it was extra benefits the EPA was failing to quantify. The agency had already justified the benefits of the methane reductions outweighed the costs of compliance.

"It didn't matter from that context whether they had done a more granular attempt to estimate the benefits," Zevin said.

The Trump administration, by contrast, is already limiting how it calculates the climate benefits of reducing methane. Ignoring a whole category of potential public health damages carries even more weight, he said.

The EPA is also operating in a world where the science has continuously improved, researchers said.

To claim data limitations or uncertainty as an excuse not to do the calculations is "particularly more egregious now because we have better data and a long track record of doing this stuff in public journals," John Loomis, a professor in Colorado State University's Department of Agriculture and Resource Economics, told Bloomberg Environment.

Loomis and a colleague published a study in 2017 quantifying the environmental costs and benefits of fracking in 14 states.

### **Scientific Uncertainty**

Uncertainties do pose challenges in the science, particularly as it relates to how much pollution is coming from the sector, researchers said.

For example, emissions from oil and gas production vary depending on where the drilling operations are located, when the emissions are occurring, and what the weather is like, Nicholas Muller, an associate professor of economics, engineering, and public policy at Carnegie Mellon University, told Bloomberg Environment.

Emissions from drilling operations closer to metropolitan areas, with the risk of exposing more people, cost more than those from operations in remote areas, Muller added.

But as science improves, researchers are finding the impacts of air pollutants to be even more damaging.

EPA's own scientists in research published July in Environmental Science & Technology journal estimated pollution from the sector could cause nearly 2,000 premature deaths, 1,000 respiratory or cardiovascular-related hospital visits, 3,600 emergency room visits, and more than 1million cases of worsened asthma or acute respiratory symptoms in 2025. In high-production states such as Oklahoma, Colorado, Louisiana, Pennsylvania, Ohio, and Texas, the effects would be even more acute.

"The science is always uncertain, but that's never a reason not to act," Aimee Curtright, senior physical scientist at RAND Corp., told Bloomberg Environment.

### **2013 Damage Estimates**

Curtright and several colleagues in 2013 estimated the air pollutant emissions from shale gas extraction in Pennsylvania and quantified the monetary damages of their public health impacts.

The recent research from EPA scientists appears to improve a model Curtright and her colleagues used, allowing the July study to pinpoint even more geographically specific impacts, she added.

Curtright said if the agency wanted to be conservative in dealing with uncertainties, it could include a full range of possible impacts.

But environmentalists and some researchers suggest the EPA may not want to conduct the full analysis because its results would undercut its attempts to undo emissions rules.

"If you already know the answer, the last thing you want is to have an analysis out there that contradicts that," Loomis said.

## ABC News: Florence's floodwaters may carry hidden dangers: Electrocution, injury and infection

<https://abcnews.go.com/Health/florences-floodwaters-carry-hidden-dangers-electrocution-injury-disease/story?id=57821307>

By KELLY MCCARTHY Sep 16, 2018

Tropical Storm Florence is dumping near-record amounts of rain in parts of the Carolinas, causing catastrophic flooding that, apart from the damage to homes and businesses, poses serious health hazards to residents.

Muddy, opaque floodwaters can hide large or sharp objects dislodged during a storm that can lead to injury, "anything from a fracture to a major laceration," said ABC News' chief medical correspondent Dr. Jennifer Ashton. The water may also contain snakes or other wildlife, human waste from overwhelmed sewage lines or chemicals leached or spilled from flooded sites.

Ashton, who was on the ground in Texas after Hurricane Harvey last year, said the floodwater dangers she witnessed included drowning, electrocutions from downed power lines, and infection.

"When you talk about what is in that water -- human waste, raw sewage, toxic chemicals, oil, gasoline, potentially wildlife, snakes, alligators -- then there's the possibility for anyone with an open cut or scrape on their body for an entry, portal of entry for bacteria to get in there," Ashton said on "GMA" Friday.

Stagnant water is a paradise for bacteria, and any open wounds give bacteria a way in to the body. That can lead to anything from a simple soft-tissue infection to a much more severe infection. People with a weak immune system are most vulnerable.

The Environmental Protection Agency has identified 41 Superfund sites in threatened parts of the Carolinas, Virginia and Maryland and Georgia, including polluted industrial sites, chemical plants, coastal shipyards and military bases.

EPA spokesman John Konkus said the agency is listening for any word of oil or hazardous substance spills, adding that federal on-scene coordinators and equipment stand ready to deploy if needed.

Sewage water can also easily mix with storm water, carrying bacteria that can cause short-lived gastrointestinal illness or worse.

Days after Hurricane Harvey hit the Gulf Coast in 2017, "GMA" asked Dr. Terry Gentry from Texas A&M University to collect and evaluate samples of the floodwater.

He found E. Coli levels more than 125 times higher than the EPA recommends for swimming and 15 times higher than the standard for wading. E. Coli infections can range from mild to severe.

North Carolina, with one of the largest pork industries in the country, is also at risk of contamination from the flooding of hog manure pits, coal ash dumps and other industrial sites.

Here are a few commonsense strategies to help avoid unnecessary risk from floodwaters:

- After flooding, ensure your drinking water is sanitized and wash your hands thoroughly after contact with floodwaters. Disinfect objects that have come into contact with floodwater before offering them to children or toddlers.

- Try to avoid exposure with floodwaters for long periods of time to prevent physical injury. Wear waterproof boots if you have them.
- Keep any open wounds clean, dry, and covered if you must go through the water. Seek medical attention for any wounds that are not healing or are festering or making you feel ill.

## Environmental Working Group: EPA Watchdog Slams Agency's Failure to Address Asbestos in U.S. Schools

[https://www.ewg.org/release/epa-watchdog-slams-agency-s-failure-address-asbestos-us-schools#.W5\\_c2qZKics](https://www.ewg.org/release/epa-watchdog-slams-agency-s-failure-address-asbestos-us-schools#.W5_c2qZKics)

By Alex Formuzis

WASHINGTON — The Environmental Protection Agency has failed to take the required and necessary steps under federal law to protect children from the dangers of asbestos exposure in the nation's public and private schools, the agency's internal watchdog said today.

The more than year-long investigation found that EPA had largely ignored its responsibilities under the Asbestos Hazard Emergency Response Act of 1986, or AHERA. The act requires, under the oversight of the agency, that all public school districts and private schools regularly inspect buildings for asbestos and take appropriate abatement actions when necessary.

The EPA Inspector General report stated:

Even though the EPA was responsible for conducting AHERA compliance inspections for the majority of states, it conducted fewer inspections overall than the states responsible for their own inspections. Specifically, from fiscal years 2011 through 2015, the EPA conducted 13 percent of AHERA inspections, whereas states with jurisdiction over their own inspections performed 87 percent.

Furthermore, EPA regions have either significantly reduced or eliminated resources for their asbestos program. Of the agency's 10 regions, five only inspect for asbestos in schools when they receive asbestos-related tips or complaints. Without compliance inspections, the EPA cannot know whether schools pose an actual risk of asbestos exposure to students and personnel.

"Turning a blind eye to the risks to children from asbestos at school is tantamount to installing cigarette machines in the hallways," said EWG President Ken Cook. "Congress should not confirm Alexandra Dunn to head EPA's chemical safety office unless she commits to follow the law and help schools tackle this serious health threat facing an untold number of children."

"It is reprehensible that EPA has ignored the asbestos in schools and disinvested in AHERA, thus exposing thousands of children and teachers to this deadly toxin. This report further proves that the EPA's reckless mismanagement of AHERA and TSCA implementation ensures exposures will continue," said Linda Reinstein, co-founder and CEO of the Asbestos Disease Awareness Organization, or ADAO. "It's time for Congress to keep our students and staff safe by enforcing AHERA and banning asbestos now. The EPA has failed Americans again."

Under the 1986 law, EPA requires schools to:

- Perform an inspection to determine whether asbestos-containing materials are present and then re-inspect asbestos-containing materials in each school every three years;
- Develop, maintain, and update an asbestos management plan and keep a copy at the school;
- Provide yearly notification to parent, teacher, and employee organizations on the availability of the school's asbestos management plan and any asbestos-related actions taken or planned in the school;
- Designate a contact person to ensure the responsibilities of the public school district or the non-profit school are properly implemented; and
- Perform periodic surveillance of known or suspected asbestos-containing building material.

In 2015, a report by EWG Action Fund, a separate 501(c)(4) sister organization to EWG, documented the widespread threat of asbestos exposure in the nation's schools and the failure by EPA and Congress to adequately address the risk it poses to students, faculty and school staff.

That same year, a separate Senate investigation by then-Senator Barbara Boxer, D-Calif. and Senator Ed Markey, D-Mass. revealed serious failures by states and EPA to adequately protect students and teachers from asbestos in the nation's schools.

Beyond the classroom, children continue to be exposed to asbestos through consumer goods. In 2007, ADAO found asbestos in toys, and in 2015, EWG Action Fund commissioned tests that found the notorious carcinogen in crayons and toy crime scene kits.

In 2016, President Obama signed legislation that finally gave EPA the authority to ban asbestos. But the Trump administration's actions under the new law suggest that it will allow the use and importation of the substance to remain legal.

## Maryland plans to appeal EPA denial of emissions petition

By Associated Press September 17 at 12:32 PM

ANNAPOLIS, Md. — Maryland's attorney general says the state will appeal the U.S. Environmental Protection Agency's decision to deny the state's efforts to reduce emissions from 36 power plants in five upwind states.

Brian Frosh said Monday he plans to appeal the EPA decision to the U.S. Court of Appeals for the District of Columbia Circuit.

The EPA signed a final agency decision denying Maryland's petition for relief under the Clean Air Act late Friday.

The Maryland petition was filed in December 2016. It asked EPA to require the facilities to run pollution-control equipment that is already installed to reduce emissions of ozone-forming nitrogen dioxide.

Maryland contends the power plants are violating the "good neighbor" provision of the Clean Air Act. The power plants are in Indiana, Kentucky, Ohio, Pennsylvania and West Virginia.

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E&E News: A second coal ash impoundment has breached — EPA  
<https://www.eenews.net/greenwire/stories/1060097293/search?keyword=epa>  
Ariel Wittenberg, E&E News reporter Published: Monday, September 17, 2018

A second coal ash disposal site owned by Duke Energy Corp. has breached its impoundment in Hurricane Florence's deluge, EPA said today.

It's not yet clear how much coal ash escaped the landfill in the breach late last night, and Reggie Cheatham, EPA's director of land and emergency management, said he doesn't yet know the location of the dump in question or how close it is to the Cape Fear River.

"We do not have a map of the impoundment that breached," he said. "We have just received the notification of the release."

EPA has been told, he said, that the breach is "virtually impossible to access outside of some search-and-rescue operation."

Over the weekend, coal ash escaped from another disposal site at Duke Energy's L.V. Sutton power station near Wilmington, N.C., dumping into Sutton Lake along the Cape Fear River, though it did not reach the river itself, Cheatham said.

But the Cape Fear River has become contaminated with partially treated sewage, after a wastewater treatment plant in Wilmington lost power over the weekend.

Another sewage treatment plant, in Jackson, N.C., experienced a "catastrophic failure" because of the storm over the weekend, Cheatham said.

"They basically had to deal with a storm surge, loss of power and then obviously shut down pumps, so the system depressurized and they haven't been able to bring that back up," Cheatham said.

EPA has also received reports of sewage flowing from manholes across the state.

While there had been concerns that Florence's heavy rains could also swamp hog waste ponds, no breaches have been reported yet (see related story).

"The anticipated mission for potential swine lagoon issues appears to be subsiding, but we will continue to coordinate with North Carolina and EPA officials," said the Army Corps of Engineers' director for contingency operations, Charles "Ray" Alexander.

The American Water Works Association is also aware of 28 water utilities that have issued boil-water advisories to customers.

Kevin Morley, the trade group's federal relations manager, said that he does not know the specifics of why each boil-water advisory was issued, but that pressure loss or switching power to a generator could prompt such action.

"Hopefully, if some of these are in evacuation zones, most customers left, so it impacts fewer people," he said.

Other drinking water systems have lost or are at risk of losing power as the remnants of Florence — which has been downgraded to a tropical depression — pass over the state.

Cape Fear Public Utility Authority, the water and sewer utility for Wilmington and most of New Hanover County, had a particularly close call.

With the city surrounded by floodwaters yesterday, inaccessible to emergency responders, the utility was running out of fuel for its generators.

The utility sent out an emergency alert to its customers yesterday morning, warning them to start filling bathtubs and water bottles. Without a new fuel source, the utility would be unable to pump water after 48 hours.

"It is with a heavy heart that we share this information with our customers, however, we want to give you as much notice as possible," the alert said.

On Facebook, some customers slammed the utility for not being prepared. One asked, "Where and what was your emergency contingency plan?"

Others offered solutions, including a woman who said to call the Port of Wilmington to see if it had extra fuel stored.

Peg Hall-Williams, public information officer for the utility, responded to each comment, thanking people for the suggestions.

"Our community has been so hard hit. I don't want to see this," she wrote to one commenter. "Thanks for the idea and please keep them coming!"

Ultimately, the New Hanover Emergency Operations Center identified a fuel source for the utility, which, Williams said in an email, should last through the recovery process.

Wilmington isn't the only area where lost power has been affecting drinking water.

The Army Corps of Engineers has helped install emergency generators at one facility in Hoke County, which serves 500 residents.

The Federal Emergency Management Agency's Tom Fargione said the agency will be focusing on restoring power and drinking water in the coming days.

"We are looking at areas where we can bring the most immediate support to the most people, and that's water and power," he said.

E&E News: 8 ways that EPA's helping the coal industry

<https://www.eenews.net/greenwire/stories/1060097285/search?keyword=epa>

Niina Heikkinen, E&E News reporter- Published: Monday, September 17, 2018

President Trump came to office with a promise to help the struggling coal industry, and EPA has at least eight major actions underway to help the administration keep that campaign pledge.

Obama-era rules aimed at cutting air emissions of carbon dioxide and mercury and reducing discharges of boron, arsenic and radium from coal ash into waterways are being rolled back, revised or delayed.

EPA has characterized its rule changes as a way of restoring state authority, lowering costs and hewing to its core mission. A lesser focus appears to be human health and the environment.

While the Obama team sought over eight years to close what it saw as gaps in protections, Trump's focus has been ending the "war on coal," said Joseph Goffman, executive director of the Harvard Environmental Law Program and a former Obama EPA official.

"I think we are seeing an inversion where the agency and, in the case of coal ash, Congress are almost using deregulation as a sort of backdoor way of if not subsidizing coal-fired generation, then at least privileging it by shielding it from paying for the cost of reducing pollution and waste and transferring those costs back to the public," Goffman said.

Observers and analysts say it is difficult to pinpoint how significant this combination of rule changes will be in keeping coal-fired plants operating while natural gas is cheap and readily available and renewable energy prices are falling.

"It's hard to tell whether that additional push on this will be enough to offset the economics," said Miles Keogh, executive director of the National Association of Clean Air Agencies.

Here is a rundown of top EPA actions affecting coal:

#### Mercury and Air Toxics Standards

In August, EPA announced it would be reviewing MATS, a 2012 rule that requires reductions of emissions of mercury, arsenic and acid gases from power plants.

The agency said it wanted to know whether it adequately considered the costs of compliance when it originally decided the rules were needed. EPA is also reviewing the rule as a whole.

Many analysts see the MATS review as an effort to make the regulation easier on power plants by axing certain reporting requirements.

Some utilities have called for the agency to regulate mercury under a different section of the Clean Air Act, eliminating the need for power plants to review every eight years whether their pollution controls are doing enough to protect human health and the environment (Greenwire, Aug. 30).

The previous administration submitted a revised analysis of the costs and benefits of the MATS rule in response to a Supreme Court ruling. The 2016 "supplemental finding" maintained that the health benefits of required pollutant controls outweighed the costs to industry.

Industry groups were challenging that updated analysis in the U.S. Court of Appeals for the District of Columbia Circuit, but litigation was put on hold last year at the Trump administration's request.

EPA's MATS review has baffled many observers, who point out that affected power plants either have shut down or have already complied with the standards and made significant investments in implementing control technologies.

"Regulated utilities were pretty unified in NOT wanting the standards revoked, because many of them still have prudence reviews before state regulators to justify the money they spent to comply, which they now cannot get back," said Sherry Orton, an analyst for Doyle Trading Consultants, in an email.

Richard Revesz, director of the Institute for Policy Integrity at New York University, said it's possible power plants already in compliance with the rule might still end up reversing course on pollution reductions, if EPA weakens its standards.

Because running the pollution controls costs money, some power plant operators might choose not to operate that technology if they aren't required to do so.

#### Clean Power Plan

On Aug. 21, the Trump administration announced its proposed replacement for the Obama administration's signature climate action, the Clean Power Plan.

Trump's Affordable Clean Energy rule is aimed at controlling carbon dioxide emissions from power plants by focusing only on efficiency improvements at individual facilities.

The proposal would not set specific emissions reduction targets and instead would give states wide latitude to decide how much to cut carbon emissions, based on the age and condition of plants under their jurisdiction.

The rule is a sharp departure from the Clean Power Plan, which took a more systemic approach to emissions reductions. The 2015 rule set specific targets for lowering greenhouse gases, while also giving states flexibility.

Beyond its lack of targets, ACE could benefit coal-fired plants because it would allow states to exempt certain facilities from complying with the rule based on their age.

States whose power plants have already implemented control technologies recommended by the administration could also not have to act on further emissions cuts (Climatewire, Aug. 22).

The National Rural Electric Cooperative Association, which has come out in support of the proposed rule change, is still reviewing what the details will mean to its members.

"We're pleased with areas in which we can get some regulatory relief," said Ted Cromwell, executive director of environment at NRECA, in an email. "These initial steps help inform how electric co-ops plan to meet tomorrow's energy needs, but are not the only factor in those decisions."

EPA's air chief, Bill Wehrum, has argued that EPA's efficiency-based emissions improvements will depend on making changes to another agency permitting program — New Source Review.

#### New Source Review

This pre-construction permitting program applies to both new and modified facilities, and was established to limit emissions increases from power plants, as well as factories and industrial boilers.

Industry groups have complained the program is so complex and costly that it causes them to put off efficiency upgrades. Now EPA is developing a rule that relies on making improvements that trigger NSR requirements. Wehrum has said the agency is looking to more closely align the permitting program with the climate rule.

To do this, the agency is re-evaluating how it determines whether a plant upgrade would increase emissions to the point of triggering New Source Review. The current system looks at emissions annually. Under the ACE proposal, the agency would instead look at the expected impact on the hourly emissions rate.

Climate analysts warn that such an approach could allow more pollution because plants with improved hourly emissions rates can be incentivized to run more often, leading to even more carbon pollution.

Still, analysts disagree on whether EPA's NSR proposal, long sought by industry, would spur greater investment in existing coal-fired power plants (Climatewire, Aug. 22)

While the current plan would apply only to permitting requirements for power plants, industry groups see an opening for broader permitting reform for other industrial sources.

#### New and modified power plant rule

This "sister rule" to the Clean Power Plan is aimed at controlling carbon emissions from new or heavily modified power plants.

Like EPA's proposed ACE rule, this 2015 rule focused on cutting emissions through efficiency improvements at facilities. However, the rule also recommended the use of partial carbon capture and storage technology for coal plants (Climatewire, Oct. 11, 2017).

This climate rule is currently in effect, but litigation over it remains stayed as the Trump administration reviews its options.

On July 25, the agency told the court it was sending a proposal to the Office of Management and Budget for interagency review in August. It has not yet been made public.

#### Coal ash

The Obama coal combustion residuals, or CCR, rule set requirements for safely disposing of coal ash, a waste product left over from burning coal that is typically stored in either landfills or pools.

On Aug. 29, the D.C. Circuit ruled the 2015 rule did not do enough to protect groundwater from toxic chemicals found in coal ash.

"At the time it was made final, we were surprised and disappointed it was not as stringent and protective as we expected and we thought the law demanded. The final rule was a compromise between what public interest and industry wanted," said Lisa Evans, senior administrative counsel at Earthjustice.

The federal appeals court decision comes as the administration is separately seeking to weaken the Obama CCR rule requirements.

In July, the agency published its first phase of amendments to give utilities added compliance time under some circumstances and provide more flexibility to both state and federal regulators. EPA was aiming to finalize a second phase of changes in 2019 (Greenwire, Aug. 29).

One of the modifications EPA proposed was meant to better align the ash rules with guidelines for limiting toxic metals in wastewater. NRECA's Cromwell said that could make upgrading technology cheaper for power plants.

"When lining up contractors and installers for new equipment in response to regulations, very often if the rules are synced up with one another, it reduces the costs of the modifications you make across the board," said Cromwell.

It is unclear at this point what the D.C. Circuit decision will mean for EPA's ongoing plans to revise coal combustion waste standards.

#### Effluent guidelines

This rule controls steam power plant discharges into surface waters. It's aimed at preventing contamination from toxic chemicals like arsenic, lead, mercury, selenium, chromium and cadmium.

In September 2017, EPA announced it was delaying certain compliance deadlines for two years so that power plants would not have to comply until 2020.

The delay was meant to allow EPA time to reconsider the "best available technology economically achievable effluent limitation and pre-treatment standards for existing sources," according to the agency.

DTC's Orton noted that most of the control on effluent happens at the state level and the changes to the rule were designed to go into effect on a rolling basis as each plant's discharge permits came up for review.

"I doubt that many state DEQs are going to relax what they ask by that much, and so far, seems like everyone is already just planning to comply anyway," Orton said in an email.

The Obama administration finalized the revised effluent rules in the end of 2015. It was the first time the standards had been updated in three decades (E&E News PM, Sept. 13, 2017).

EPA's jurisdiction over those discharges could also soon change. EPA and the Army Corps of Engineers are currently working on a proposal to alter which wetlands and waterways are covered by the Clean Water Act.

The new version of the Waters of the U.S., or WOTUS, definition is expected to restrict federal jurisdiction over streams that do not have constant flows. That means permit requirements for any discharges — including from power plants — into ephemeral or intermittent streams could soon change.

#### Regional haze

In April, the Trump administration released a memorandum for the EPA administrator to review state implementations plans under the regional haze rule.

This rule is aimed at improving air quality in national parks and wilderness areas. Many of the measures to improve air quality focus on pollution from power plants.

The Obama administration had sought to put in place stricter pollution limits, and litigation over the proposed changes was still ongoing when Trump took office.

"States such as Utah, Texas, etc. all had less stringent plans than the federal proposal, and it almost certainly would have pushed additional coal plants into retirement. With the new administration in power, the stricter plan was retracted," said Orton.

She noted that the primary beneficiary was coal from the Powder River Basin, since that fuel helps power many Western plants.

#### Cross-State Air Pollution

While EPA is not suggesting changing this rule, the agency is looking at how states can count emissions reductions under it.

In July, EPA proposed that the Cross-State Air Pollution Rule update would fulfill the agency's obligations concerning interstate pollution transport under the 2008 ozone National Ambient Air Quality Standards, another air quality rule affecting power plants.

#### Other actions

The regulatory changes are all happening as the agency wants to alter how it determines the costs and benefits of rulemaking. EPA is also proposing a rule to evaluate what types of research can be included in new actions.

"What's visible through the combination of these individual rules and changes to foundation methodologies, it's really almost breathtaking the way they have been methodical and comprehensive," said Goffman.

William Buzbee, a professor at Georgetown Law, also noted that EPA is breaking from historical norms under which regulatory agencies either trended toward stricter rules or at least maintained the status quo.

He said EPA's rule changes tend to reduce the rigor of standards, lower pressure for companies to come into compliance and remove pressure on regulators to act, giving states more flexibility to be less stringent.

"When you look collectively at this array of regulatory proposals and in some instances regulatory actions, I think without exception they are providing regulatory relief or greater flexibility to coal-related businesses or regulators of coal-related businesses," Buzbee said. "It's a fundamental moving of the goal posts back; it's asking less and allowing more time to get there."

But Keogh with the National Association of Clean Air Agencies and others acknowledged that even if the rollbacks do not overcome legal challenges, the delay in enacting rules could be a reprieve for certain facilities to delay retirements or purchases of expensive pollution controls.

"In the end, coal has a lot of things that are making it not super attractive to investors and decisionmakers. It's still going to be really hard to finance upgrades in coal plants; it's going to be really hard to get community support for mining and emissions aspects of this," Keogh said.

Beyond EPA, other agencies are also keeping coal in mind. Congress repealed an Interior Department stream protection rule, and Secretary Ryan Zinke moved to undo a leasing moratorium. Many coal-related regulations across government are either on ice, dead or being rolled back.

#### Results

Coal production has stabilized under Trump, albeit for reasons largely beyond his control and nowhere near his bombastic campaign promises. Surpassed by gas, coal generated about 30 percent of the country's power last year.

Mine production rose in 2017 on the back of resurgent coal exports, which continue to rise thanks to demand from countries like India.

But even the ACE proposal concedes that coal production will be cut nearly in half by 2035, as the administration has yet slow the closures of power plants or encourage the development of new ones. The Department of Energy is weighing whether to move on that front.

"Coal's uphill fight remains, but the government-orchestrated ambush is over. The coal industry has been given a chance," the National Mining Association wrote in a blog post titled "Perspective and Optimism."

"The regulatory reset hasn't just halted the assault," NMA said. "It has also provided the critical assurance that government understands that environmental stewardship and industry can coexist."